

REMARKS

The final office action dated May 30, 2007 (the “Office Action”) and Advisory Action dated August 10, 2007 has been received and noted. In response thereto, and pursuant to 37 CFR § 1.114, Applicants submit the following amendment and remarks in addition to the fee set forth in 37 CFR § 1.17(c). Claims 1-7 were examined. Claims 1-7 were rejected. Claim 1 is amended. Support for the amendment can be found in, for example, paragraph [0018] of the Application. As such, no new matter has been added. Claims 1-7 remain in the application. Reconsideration of the pending claims is requested in view of the above-amendments and following remarks.

I. Claims Rejected Under 35 U.S.C. § 103

A. Claims Rejected as Unpatentable over Gealer in view of Zechman

Claims 1-7 were rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 4,765,865 to Gealer et al. (“*Gealer*”) in view of U.S. Patent No. 3,774,079 to Zechman (“*Zechman*”). Applicant respectfully submits that amended independent claim 1 and its respective dependent claims are not obvious over the cited references.

Amended independent claim 1 includes the limitation of “a working electrode *terminal to couple to a portion of the conductive layer consisting of nickel . . . by an independent clip*.” (App., claim 1.) The significance of clip 226 and its function of clipping to the conductive layer *only* is illustrated in the Application, which states in pertinent part, “[c]lip 226 makes good electrical contact with the conductive layer to be selectively etched off wafer 220.” (App., ¶ [0018]).

By contrast, *Gealer* teaches a system to increase the etch rate of a wafer including reaction vessel 13, reference electrode 23 and holder 11 which simultaneously holds wafer/fragment 9 and platinum gauze counter-electrode 10. (*Gealer*, col. 5, lns. 20-43; FIG. 2). Thus, as admitted by the Examiner on page 2 of the Office Action, *Gealer* does not disclose each and every limitation of independent claim 1, namely, the limitation discussed above. *Zechman* does not cure this lack of teaching or suggestion because *Zechman* teaches “a ring type clip or holder 5 spaced from and parallel with the electrode 3.” (*Zechman*, col. 3, lns. 54-55.) According to *Zechman*,

[t]he reason for providing a circular or annular clip such as 5 is to provide a large contact surface area between the wafer 4 and the negative battery connection. This will assure the flow of adequate current through the circuit to complete anodizing of the surface of the wafer 4 to a suitable degree prior to excessive anodization of the contact area between wafer 4 and the clip 5

(*Zechman*, col. 3, lns. 56-63.) Thus, *Zechman* does not teach or suggest all of the limitations of independent claim 1, namely, “a working electrode *terminal to couple to a portion of the conductive layer consisting of nickel . . . by an independent clip.*” (see App., claim 1.) Dependent claims 2-7 depend from independent claim 1 and therefore include all of the limitations thereof. Accordingly, Applicant submits that independent claim 1 and its respective dependent claims are allowable over the cited references.

B. Claims Rejected as Unpatentable by *Gealer* in view of *Shaw*

Claims 1-7 were rejected under 35 U.S.C. § 103(a) as being unpatentable over *Gealer* in view of U.S. Patent No. 3,560,357 to *Shaw* (“*Shaw*”). Applicant respectfully submits that amended independent claim 1 and its respective dependent claims are not obvious over the cited references. *Gealer* does not teach or suggest all of the limitations of independent claim 1 for the reasons stated in section I(A) of this Response. *Shaw* does not cure this lack of teaching or suggestion because *Shaw* teaches “spring clip 19 [which] has an uncoated tapered portion 20 which extends through a small hole in the photoresist layer 14 *to contact the underlying portion of the film 19.*” (*Shaw*, col. 3, lns. 57-30.) That is, spring clip 19 is in contact with tungsten film 13, which is described by *Shaw* as an “inactive metal[].” (*Shaw*, col. 3, ln. 14; FIG. 2.) Thus, *Shaw* does not teach or suggest all of the limitations of independent claim 1, namely, “a working electrode *terminal to couple to a portion of the conductive layer consisting of nickel . . . by an independent clip.*” (see App., claim 1.) Dependent claims 2-7 depend from independent claim 1 and therefore include all of the limitations thereof. Accordingly, Applicant submits that independent claim 1 and its respective dependent claims are allowable over the cited references.

C. Claims Rejected as Unpatentable by *Gealer* in view of *Van Dijk*

Claims 1-7 were rejected under 35 U.S.C. § 103(a) as being unpatentable over *Gealer* in view of U.S. Patent No. 3,616,345 to *Van Dijk* (“*Van Dijk*”). Applicant respectfully submits that amended independent claim 1 and its respective dependent claims are not obvious over the cited

references. *Gealer* does not teach or suggest all of the limitations of independent claim 1 for the reasons stated in section I(A) of this Response. *Van Dijk* does not cure this lack of teaching or suggestion because *Van Dijk* teaches that “[b]y means of a clip 30 . . . platinum connection 31 is clamped against the side 3 at a place 32 which is located near the edge of the disclike body.” (*Van Dijk*, col. 4, lns. 24-27.) That is, clip 30 is not even connected with the silicon body itself on one side, but instead has a platinum connection 31 situated therebetween. (*Van Dijk*, FIG. 4.) Thus, *Van Dijk* does not teach or suggest all of the limitations of independent claim 1, namely, “a working electrode ***terminal to couple to a portion of the conductive layer consisting of nickel . . . by an independent clip.***” (see App., claim 1.) Dependent claims 2-7 depend from independent claim 1 and therefore include all of the limitations thereof. Accordingly, Applicant submits that independent claim 1 and its respective dependent claims are allowable over the cited references.

D. Claims Rejected as Unpatentable by *Nojiri* in view of *Zechman*

Claims 1-7 were rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 5,173,149 to Nojiri et al. (“*Nojiri*”) in view of *Zechman*. Applicant respectfully submits that amended independent claim 1 and its respective dependent claims are not obvious over the cited references.

Amended independent claim 1 includes the limitation of “a working electrode ***terminal to couple to a portion of the conductive layer consisting of nickel . . . by an independent clip.***” (App., claim 1.) The significance of clip 226 and its function of clipping to the conductive layer ***only*** is illustrated in the Application, which states in pertinent part, “[c]lip 226 makes good electrical contact with the conductive layer to be selectively etched off wafer 220.” (App. ¶ [0018]).

By contrast, *Nojiri* teaches an electrolytic etching apparatus including electrolytic bath 1, reference electrode 22, opposing electrode 4 and a lead connected to metallic film 31 of substrate 3. (*Nojiri*, col. 6, lns. 14-51; FIG. 5). According to *Nojiri*, the portion of substrate 3 to be etched is p-type substrate 3a, which ***is not*** in direct connection with the lead connecting to substrate 3 (again, the lead is connected to metallic film 31). (*Nojiri*, FIG. 5). Thus, as admitted by the Examiner on page 6 of the Office Action, *Nojiri* does not disclose each and every limitation of independent claim 1, namely, the limitation discussed above. *Zechman* does not cure this lack of

teaching or suggestion for the reasons outlined in section I(A) of this Response. Dependent claims 2-7 depend from independent claim 1 and therefore include all of the limitations thereof. Accordingly, Applicant submits that independent claim 1 and its respective dependent claims are allowable over the cited references.

E. Claims Rejected as Unpatentable by *Nojiri* in view of *Shaw*

Claims 1-7 were rejected under 35 U.S.C. § 103(a) as being unpatentable over *Nojiri* in view of *Shaw*. *Nojiri* does not teach or suggest all of the limitations of independent claim 1 for the reasons stated in section I(D) of this Response. *Shaw* does not cure this lack of teaching or suggestion for the reasons outlined in section I(B) of this Response. Dependent claims 2-7 depend from independent claim 1 and therefore include all of the limitations thereof. Accordingly, Applicant submits that independent claim 1 and its respective dependent claims are allowable over the cited references.

F. Claims Rejected as Unpatentable by *Nojiri* in view of *Van Dijk*

Claims 1-7 were rejected under 35 U.S.C. § 103(a) as being unpatentable over *Nojiri* in view of *Van Dijk*. *Nojiri* does not teach or suggest all of the limitations of independent claim 1 for the reasons stated in section I(D) of this Response. *Van Dijk* does not cure this lack of teaching or suggestion for the reasons outlined in section I(C) of this Response. Dependent claims 2-7 depend from independent claim 1 and therefore include all of the limitations thereof. Accordingly, Applicant submits that independent claim 1 and its respective dependent claims are allowable over the cited references.

CONCLUSION

In view of the foregoing, it is believed that all claims now pending, namely claims 1-7 and are in condition for allowance and such action is earnestly solicited at the earliest possible date. If the Examiner believes that a telephone conference would be useful in moving the application forward to allowance, the Examiner is encouraged to contact the undersigned at (310) 500-4787.

Respectfully submitted,

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CERTIFICATE OF TRANSMISSION

I hereby certify that this correspondence is being submitted electronically via EFS Web to the United States Patent and Trademark Office on August 30, 2007.


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